

REVISION OF THE GENUS *XYPHINUS* SIMON (ARANEAE: OONOPIDAE)

Christa L. DEELEMEN-REINHOLD

Sparrenlaan 8, 4641 GA Ossendrecht, The Netherlands

Synopsis

DEELEMEN-REINHOLD, C.L. (Sparrenlaan 8, 4641 GA Ossendrecht, The Netherlands): Revision of the genus *Xyphinus* SIMON (Araneae: Oonopidae). *Acta arachnol.*, 35: 41-56 (1987).

The male and female of *Xyphinus hystrix* SIMON, type species of the till now monotypic genus, are redescribed and for the first time figured from fresh material from Singapore, the type locality. Male and female of *X. xelo* n.sp. from West Malaysia and of *X. xanthus* n.sp., *X. lemniscatus* n.sp., *X. abanghamidi* n.sp., and *X. gibber* n.sp. and a male of *X. montanus* n.sp., all from Borneo, are described and figured. The genus is supposed to be related to *Opopaea* SIMON.

The genus *Xyphinus* was erected by SIMON in 1893 for a bizarre little oonopid from Singapore, ornamented with formidable teeth and spines on the carapace. SIMON (1893a) also noted the elongated pedicel. The characteristic profile of *X. hystrix*, which species until now remained the only known species of the genus, was pictured in "Histoire Naturelle des Araignées". In spite of the fact that this dainty little spider lives within the boundaries of one of the busiest centres of the South Orient, it was not mentioned in literature again and the genital organs were never figured.

Our prospect for the ground-spider fauna of rainforests of the Malay peninsula and Borneo was not only rewarded by the rediscovery of *Xyphinus hystrix* in Singapore, but also brought to light the presence of six related new species. These will be described below in the genus *Xyphinus*. On the basis of this material, the genus *Xyphinus* is redefined.

I'd like to express my sincere thankfulness to the Sarawak Government and particularly to the Staff of the Sarawak Museum and the Forest Department for their helpful cooperation, to which we owe the success of our trips to Sarawak.

Xyphinus SIMON

Type species: *X. hystrix* SIMON 1893

Redefinition: Medium-sized oonopids with complete abdominal scuta and spineless legs. Carapace elevated in males, dropping steeply behind. Eye area occupying about 3/4 width of the head. Carapace narrowed anteriorly to about half its width in the female (Fig. 34), rounded in the male (Fig. 14). Eye ratio; PM: PL: AL: AL-AL=70:50:55:55, posterior eye row recurved. Margin of carapace most often with spines or denticles, sometimes a pair of spines or conical elevations in the middle of the carapace, just behind the highest point (Figs. 1, 19). Fovea present or absent. Chelicerae toothless (Fig. 23). Maxillae as wide as labium in the female (Fig. 23), with widened base, distal excavation and apical rim in the male (Figs. 2, 3, 15, 18, 26). Sternum with rectangular prominence between coxae IV provided with lateral, sickle-shaped impressions (Figs. 9, 18, 25). Pedicel long, with transverse ribs. Abdomen: Ventral scutum with conspicuous "lung-covers", anterior surface often with a transverse ridge and/or pustules; dorsal scutum with a tendency to projecting and narrowing anteriorly. Infra-mamillar plate semicircular in the female, absent in the male. Female spermatheca unpaired, situated in a projection in the centre of the posterior margin of the epigastric fold (Figs. 20-22). Female palp with prolateral spines on tibia and tarsus. Male palp: Tibia larger than femur and patella. Bulb attached to cymbium with suture and provided with ventral plates bearing one or more apophyses and a short embolus.

Derived characters: raised carapace, particularly in the male; strong development of impressions on posterior tip of sternum; enlarged pedicel; highly differentiated male palpal bulb and central protrusion in the female epigastric area.

Xyphinus hystrix SIMON 1893

(Figs. 1-7)

Xyphinus hystrix SIMON, 1893a: 76.

Locus typicus: Singapore.

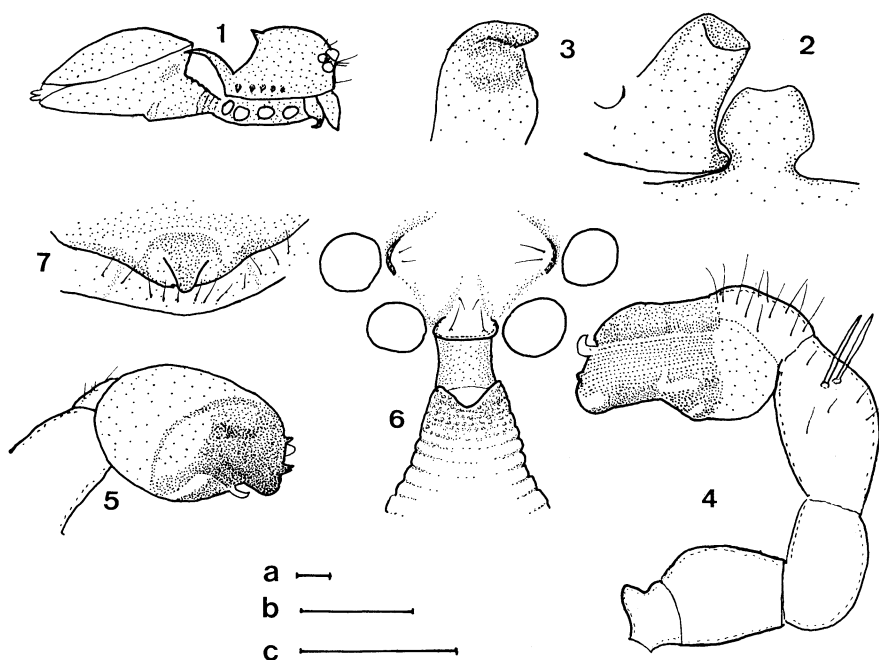
Material examined: 1 ♂, 2 ♀, Singapore, Bukit Timah, mixed forest, in litter, 21-II-1983, leg. P. R. DEELEMEN (Coll. DEELEMEN).

Redescription of the female: Total length 2.06 mm, carapace 0.86×0.67 mm,

height carapace 0.26 mm. Colour chestnut brown, legs a little lighter. Clypeus equal to the diameter of anterior eye. Posterior margin of carapace (Fig. 1) with a pair of large curved spines pointing backwards, between which a pair of round pits (cf. *X. xelo* n. sp., Fig. 8); 5 teeth on each side along the margin and a number of denticles; two flattened teeth arising from the middle of the posterior slope. No fovea. Sternum with some seta-bearing pustules and some ridges opposite coxae III; impressions opposite coxae IV small (Fig. 6). Abdomen with a pair of crests on the anterior surface of the ventral scutum.

Leg measurements in mm:

	coxa	femur	patella	tibia	metatarsus	tarsus	total
I	0.25	0.58	0.30	0.48	0.41	0.21	2.23
II	0.21	0.55	0.29	0.38	0.38	0.21	2.02
III	0.19	0.51	0.26	0.34	0.36	0.21	1.87
IV	0.26	0.69	0.35	0.48	0.50	0.28	2.56
palp		0.18	0.14	0.15		0.25	



Figs. 1-7. *Xyphinus hystrix* SIMON. 1-5: male. 1) lateral view, legs omitted; 2) maxilla and labium, ventral; 3) maxilla in profile; 4) right palp, mesal; 5) id., distal part, lateral. 6-7: female. 6) posterior part of sternum and anterior part of pedicel, ventral; 7) epigastric area, ventral.

Scales 0.2 mm. a: Fig. 1; b: Fig. 6; c: Figs 2-5, 7.

Epigyne as in Fig. 7, median projection small.

Redescription of the male: Total length 2.02 mm, carapace 0.82×0.68 mm, height carapace 0.41 mm. Clypeus a little less than the diameter of anterior eye. Maxillae as in Figs. 2 and 3. Carapace, sternum and abdomen as in the female.

Leg measurements in mm:

	coxa	femur	patella	tibia	metatarsus	tarsus	total
I	0.22	0.55	0.30	0.43	0.41	0.23	2.14
II	0.22	0.55	0.26	0.38	0.36	0.23	2.00
III	0.18	0.51	0.24	0.31	0.34	0.19	1.77
IV	0.24	0.62	0.31	0.45	0.55	0.25	2.42
palp		0.15	0.15	0.19		0.30	

Male palpal tibia with two lateral spines (Fig. 4); cymbium consisting of a hairy part, disto-laterally joined with faint suture to a pale-coloured hairless part; bulb ventrally and distally covered by a strongly chitinized plate bearing some very small protuberances (Figs. 4, 5); embolus indistinct.

Distribution: Only known from the type locality Singapore.

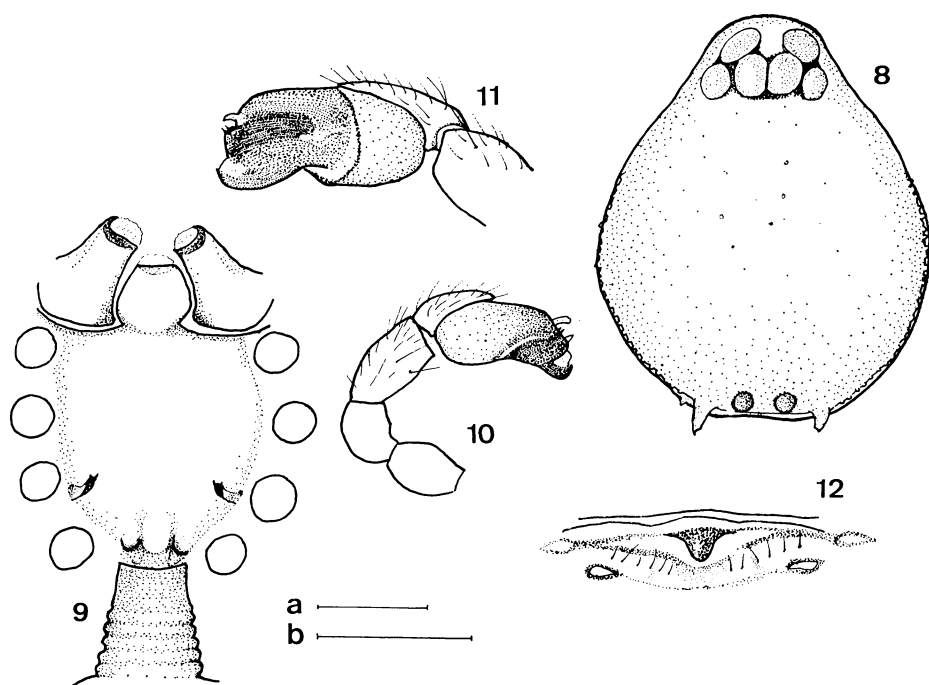
Xyphinus xelo n. sp.

(Figs. 8-12)

Material examined: 1 ♂ (holotype), 1 ♀ (paratype), Malay Peninsula, Templer's Park (Kuala Lumpur), in leaf litter on slope, 29-III-1980 (RMNH, Leiden); 3 ♂, 3 ♀, paratypes, id., 21-III-1985 (Coll. DEELEMEN). All leg. P. R. and C. L. DEELEMEN.

Description of the female: Total length 1.78 mm, carapace 0.77×0.62 mm, height carapace 0.43 mm. A little lighter in colour than *X. hystrix*. Clypeus equal to the diameter of anterior eye. Thorax with appr. 20 denticles on either side along the margin and a backward directed tooth on the posterior angles; between the latter a pair of round pits (Fig. 8). Sternum smooth, a pair of folded ridges near the base of coxae III, posterior lobe exhibiting a pair of lateral, crescent-shaped impressions (Fig. 9). Pedicel covered with warts. Abdomen not narrowed and projected in front, dorsal and ventral scutum smooth.

Leg I; coxa 0.18—femur 0.62—patella 0.26—tibia 0.39—metatarsus 0.38—tarsus 0.24, total 2.07 mm.



Figs. 8-12. *Xyphinus xelo* n. sp. 8-11: male. 8) carapace, dorsal; 9) mouthparts, sternum and pedicel; 10) right palp, lateral; 11) id., mesoventral. 12) female, epigastric area, ventral.

Scales 0.2 mm. a: Figs. 8-10; b: Figs. 11, 12.

Epigyne (Fig. 12): Very similar to that of *X. hystrix*.

Description of the male holotype: Total length 1.87 mm, carapace 0.77×0.63 mm, height carapace 0.38 mm. Clypeus only one third of the diameter of anterior eye. Maxillae (Fig. 9) as in the male of *X. hystrix*; carapace, sternum and abdomen as in the female. Leg I; coxa 0.19—femur 0.58—patella 0.26—tibia 0.43—metatarsus 0.35—tarsus 0.24 mm, total 2.05 mm. Palp; femur 0.15—patella—0.10—tibia 0.19—tarsus (including bulb) 0.10 mm. Palp (Figs. 10, 11) similar to that in *X. hystrix*, distinguished by having a pronounced ventral apophysis arising from the ventral plate.

Affinities: *X. xelo* is close to *X. hystrix*, differs by the ornamentation of the carapace and the sternum and in the male palp by the possession of a large apophysis on the ventral plate.

Etymology: *xelo* is an arbitrary combination of letters.

Distribution: Only known at present from Templer's Park north of Kuala Lumpur.

Xyphinus abanghamidi n. sp.

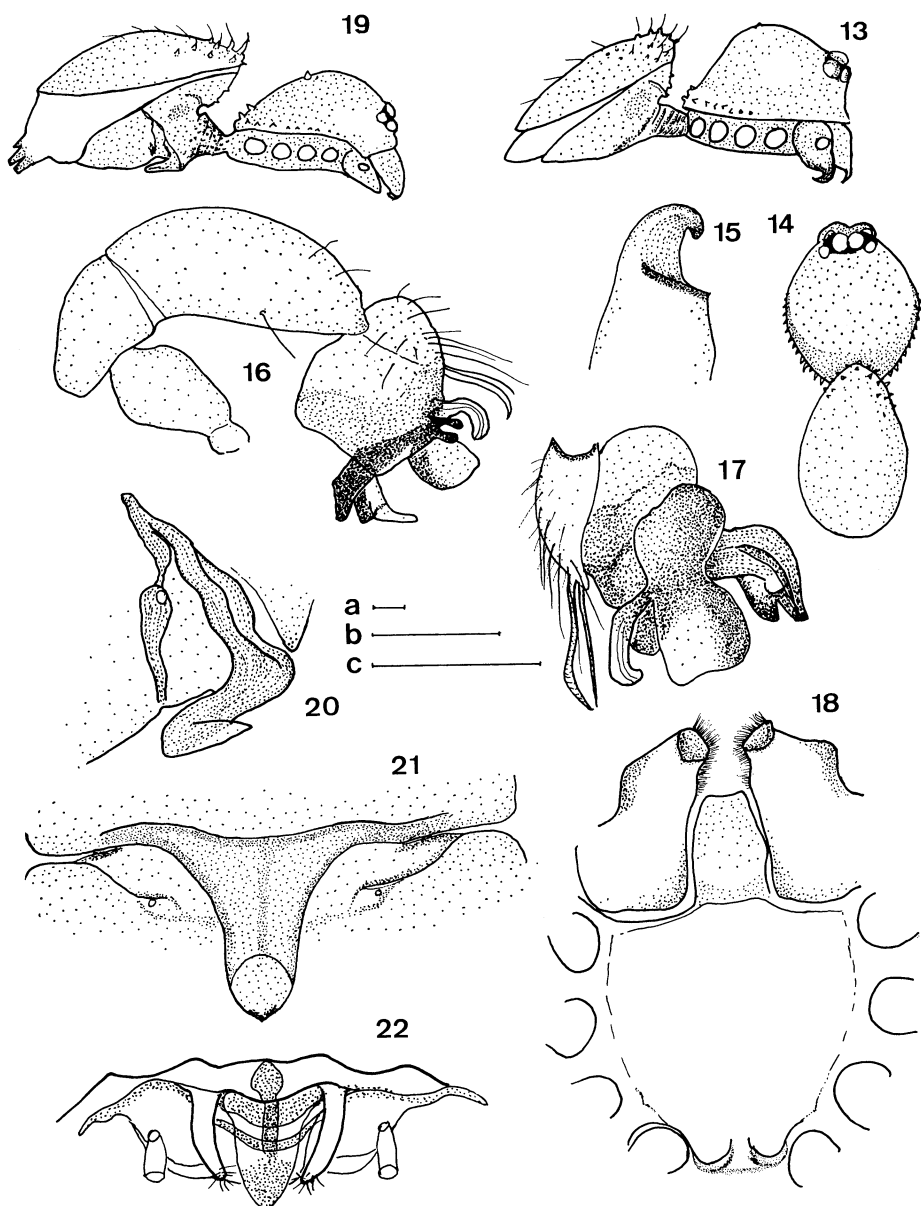
(Figs. 13-22)

Material examined: 1 ♂ (holotype) and 1 ♂ and 2 ♀ (paratypes), West Sarawak, Matang Res. (Mt. Serapi), 3-400 m, in primary forest litter, 11-I-1984 (Sarawak Mus.); 3 ♀, (paratypes), id., 2-4-IV-1985 (Coll. DEELEMEN); 5 ♂, 5 ♀, (paratypes), id., Semengoh Arboretum, in leaf litter, 4-10-I-1984 (2 ♂, 2 ♀ in RMNH Leiden, remaining in Coll. DEELEMEN); 2 ♂, Bako Nat. Park, in litter, 29-30-III-1985; 1 ♂, 1 ♀, Balai Ringin, 40 km E. of Serian, secondary forest litter, 7-IV-1985. All leg. P. R. and C. L. DEELEMEN.

Description of the female (Matang): Total length 2.15 mm, carapace 0.85×0.72 mm, height carapace 0.48 mm. Clypeus $1 \frac{1}{2}$ times the diameter of anterior eye. Thorax with 15 teeth along the margin on either side, anteriorly diminishing in size (Figs. 13, 19); a pair of conical denticles on the posterior slope of the carapace. No fovea. Posterior pits lacking. Sternum smooth but for a few pustules, posteriorly with enlarged impressions which are larger than the central stem (Fig. 18).

Pedicle and anterior surface of ventral scutum with some pustules, dorsal scutum covered with pointed teeth (Figs. 13, 19). Leg I; coxa 0.21—femur 0.62—patella 0.30—tibia 0.48—metatarsus 0.44—tarsus 0.26 mm, total 2.31 mm. Epigyne with long projection, about one third of the length of the posterior ventral scutum (Figs. 20-22).

Description of the male (Matang): Total length 2.20 mm, carapace 1.00×0.90 mm, height carapace 0.62 mm. Clypeus three times the diameter of anterior eye. Carapace strongly elevated (Fig. 13), ornamentation as the female. Maxillae (Figs. 15, 18) with large apical rim folded down. Sternum and abdomen as the female. Leg I; coxa 0.21—femur 0.58—patella 0.26—tibia 0.52—metatarsus 0.45—tarsus 0.22, total 2.24 mm. Palp; femur 0.22—patella 0.26—tibia 0.32—tarsus (including bulb) 0.25 mm. Femur (Fig. 16) inserted near the middle of patella; one or two of the distal hairs of cymbium enlarged, longer than the others; ventral plate of bulb provided with a large and twisted, branched lateral apophysis, a broad, lamellar apophysis in the middle and a small, branched apophysis (embolus?) mesally (Figs. 16, 17).



Figs. 13-22. *Xyphinus abanghamidi* n. sp. 13-18: male. 13) lateral view, legs omitted; 14) dorsal view; 15) maxilla in profile; 16) right palp, lateral; 17) id., cymbium and bulb, mesoventral; 18) maxillae, labium and sternum, ventral. 19-22: female. 19) lateral view, legs omitted; 20) epigastric area, lateral; 21) id., ventral; 22) id., dorsal (from inside).

Scales 0.2 mm. a: Figs. 13, 14, 19; b: Figs. 16, 18; c: Figs. 15, 17, 20-22.

Etymology: It is a pleasure to name this species in honour of Abang Abdul HAMID of the Forest Department in Kuching, in recognition of his kind and effective help during our stay in Sarawak in 1984.

Distribution: Southwestern Sarawak (Fig. 44).

***Xyphinus xanthus* n. sp.**

(Figs. 23–28)

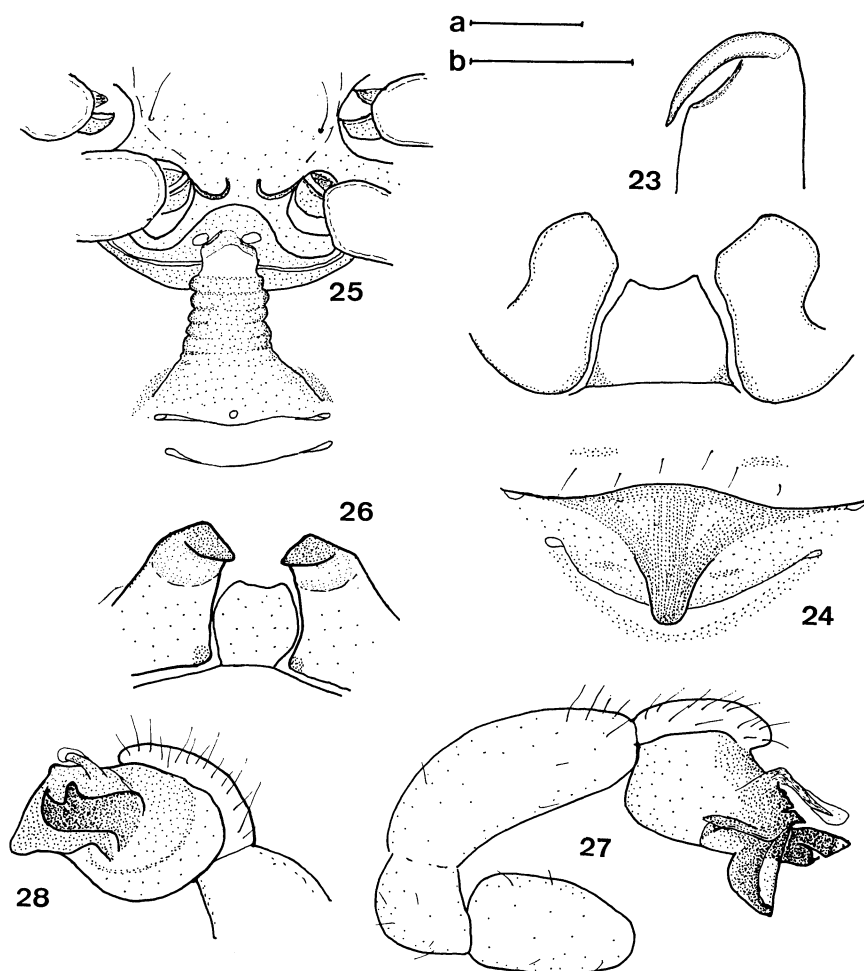
Material examined: 1 ♂ (holotype) and 2 ♀ (paratypes). West Sabah, north of Tamparuli, in light secondary forest, in litter, 1–VII-1979, leg. P. R. and C. L. DEELEMEN (Coll. DEELEMEN).

Description of the female: Total length 2.21 mm, carapace 0.91×0.72 mm, height carapace 0.38 mm. Chitinous parts pale yellow, legs white. Clypeus equal to the diameter of anterior eye. Margin of carapace aligned with granules; no teeth or protuberances on the carapace. Fovea well developed. Posterior pits lacking. Mouth parts as in Fig. 23. Sternum smooth, posterior part as in the male (Fig. 25). Pedicel relatively short. Abdomen strongly projected and narrowed in front, its tip nearly reaching the highest point of carapace. Anterior surface of ventral scutum with transverse crests and a few pustules; anterior part of dorsal scutum with granulated surface. Ventral scutum slightly reduced, about 5/6 of abdomen. Leg I; coxa 0.24—femur 0.70—patella 0.34—tibia 0.55—metatarsus 0.54—tarsus 0.29, total 2.66 mm.

Epigyne Fig. 24.

Description of the male: Total length 1.97 mm, carapace 0.86×0.77 mm, height carapace 0.53 mm. Colour as the female. Clypeus three times higher than the diameter of anterior eye. Carapace as in the female, but higher. Maxillae as in Fig. 26, profile similar to that in *X. hystrix*. Posterior part of sternum as in Fig. 25; some strong hairs opposite the coxae. Pedicel (Fig. 25) and abdomen as in the female, ventral scutum not reduced. Leg I; coxa 0.27—femur 0.75—patella 0.28—tibia 0.55—metatarsus 0.50—tarsus 0.21, total 2.56 mm. Palp; femur 0.19—patella 0.14—tibia 0.32—tarsus (including bulb) 0.21 mm. Suture between cymbium and bulb apparent; bulb not so massive as in the preceding species (Figs. 27, 28), ventral plate with a lateral, beak-shaped projection, a broad bifid apophysis in the centre and a thin, rod-shaped, mesal apophysis (embolus?).

Etymology: The name is derived from the greek and refers to the yellow



Figs. 23-28. *Xyphinus xanthus* n. sp. 23-24: female. 23) left chelicer, maxillae and labium, ventral; 24) epigastric area, ventral. 25-28: male. 25) posterior part of sternum and pedicel, ventral; 26) maxillae and labium, ventral; 27) right palp, latero-ventral; 28) id., distal part, mesal.

Scales 0.2 mm. a: Figs. 25, 26; b: Figs. 23, 24, 27, 28.

colour.

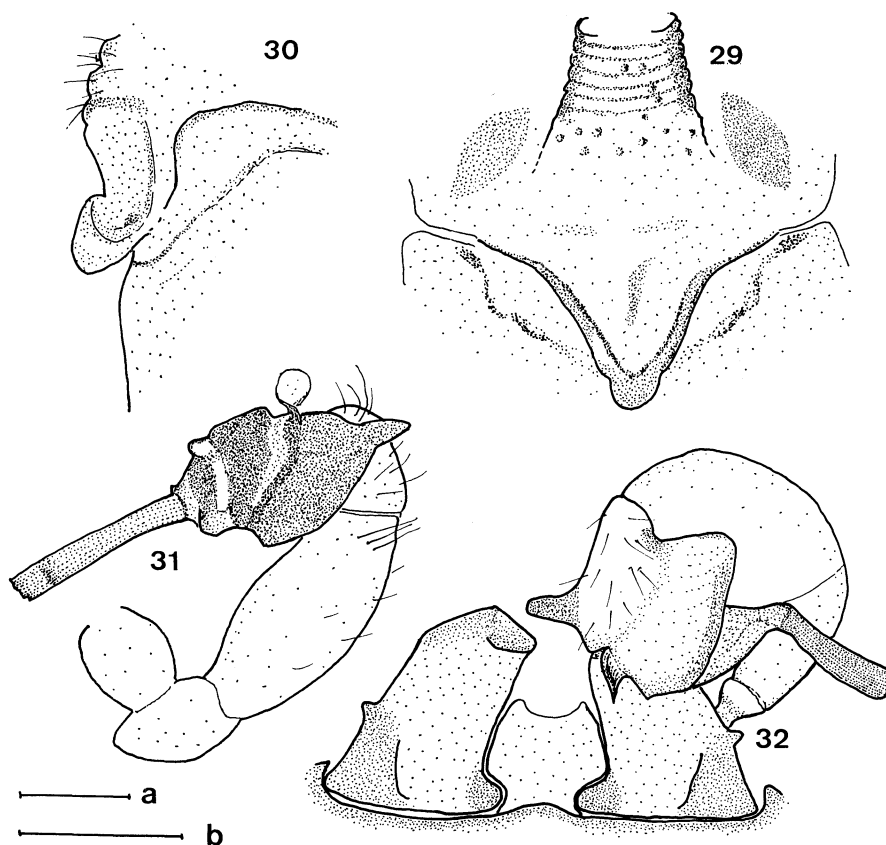
Distribution: Only known from western Sabah, Borneo (Fig. 44).

***Xyphinus lemniscatus* n. sp.**

(Figs. 29-32)

Material examined: 1 ♂ (holotype), 1 ♀ (paratype), Sabah, National Park Kinabalu, Head Quarters, ± 1550 m, dense forest, in litter, 24-VII-1980, leg. P. R. and C. L. DEELEMAN (Coll. DEELEMAN).

Description of the female: Total length 3.00 mm, carapace 1.20×0.96 mm, height carapace 0.48 mm. Clypeus a little more than the diameter of anterior eye. Margin of carapace aligned with denticles; in the middle a pair of pustules in front of the well developed fovea. Sternum as in *X. abanghamidi*. Pedicel with 5-6 transverse ridges and some pustules. Shape of abdomen normal, not projected over the carapace, anterior surface of ventral scutum with a trans-



Figs. 29-32. *Xyphinus lemniscatus* n. sp. 29-30: female. 29) pedicel and epigastric area, ventral; 30) epigyne in profile. 31-32: male. 31) right palp, meso-ventral; 32) maxillae and labium, ventral, and dorsal view of palp. Scales 0.2 mm. a: Figs. 29, 31, 32; b: Fig. 30.

verse ridge and denticles, anterior part of dorsal scutum with denticles. Leg I; coxa 0.33—femur 0.88—patella 0.41—tibia 0.69—metatarsus 0.70—tarsus 0.29, total 3.30 mm. Epigynal projection rebordered at the tip (Figs. 29, 30).

Description of the male: Total length 2.68 mm, carapace 1.20×1.05 mm, carapace height 0.62 mm. Clypeus a little more than twice the diameter of anterior eye. Carapace ornamented as the female, but more elevated. Maxillae as in Fig. 32. Sternum, pedicel and abdomen as in the female. Leg I; coxa 0.30—femur 0.88—patella 0.40—tibia 0.62—metatarsus 0.66—tarsus 0.29, total 3.19 mm. Palp; femur 0.23—patella 0.27—tibia 0.44—tarsus (including bulb) 0.37 mm. Male palp as in Figs. 31 and 32, bulb proximally with a simple mesal apophysis, distally a roundish lamina, twisted at the base; ventral plate extended laterally into a conspicuous rod, longer than the palpal tibia and flexed near the base.

Etymology: *lemniscatus* is the latin word for “ornated with ribbons” and refers to the ribbonlike rod that is borne by the male palps.

Distribution: Only known from the forest litter of Mt. Kinabalu. (Fig. 44).

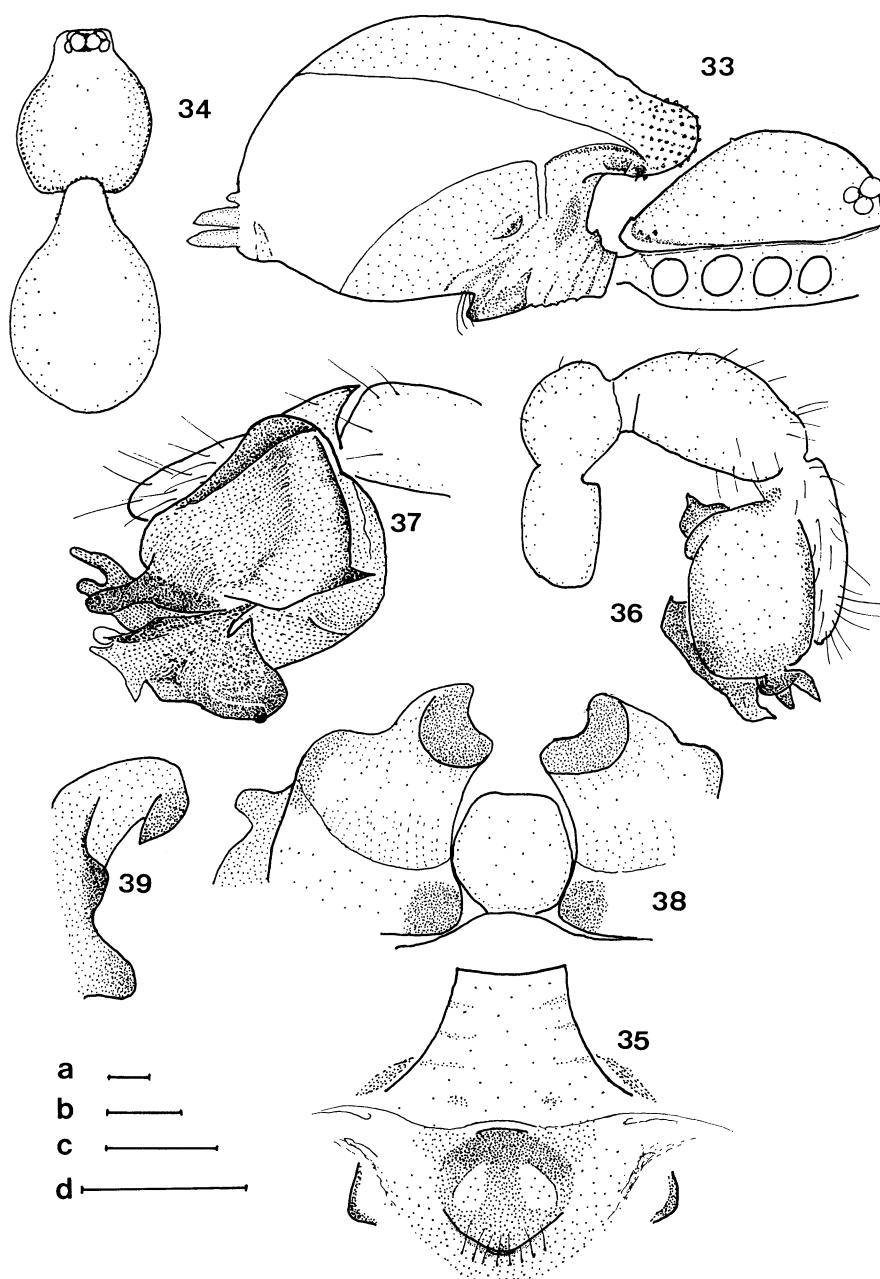
Xyphinus gibber n. sp.

(Figs. 33–39)

Material examined: 1 ♂ (holotype), 1 ♀ (paratype), East Kalimantan, Sepaku, stand of rainforest 40 km north of Balikpapan, 10–VII–1979, leg. P. R. DEELEMEN (RMNH Leiden); 2 ♂, 4 ♀ (paratypes), id., 2–5–VIII–1980, leg. P. R. and C. L. DEELEMEN (1 ♂ and 1 ♀ in Sarawak Museum, rest in Coll. DEELEMEN); 1 ♂, 1 ♀, East Kalimantan, Tenggarong, light secondary forest, in litter, 4–VIII–1980, leg. P. R. and C. L. DEELEMEN (Coll. DEELEMEN).

Description of the female: Total length 2.16 mm, carapace 1.00×0.82 mm, height carapace 0.48 mm. Clypeus equal to the diameter of anterior eye. Carapace margin aligned with small denticles; no denticles on the centre of the carapace. No fovea. Sternum posteriorly as in *X. xanthus*. Abdomen projected and narrowed anteriorly (Figs. 33, 34); anterior surface of ventral scutum with a pair of transverse crests and some denticles, dorsal scutum anteriorly with denticles. Leg I; coxa 0.28—femur 0.76—patella 0.33—tibia 0.55—metatarsus 0.55—tarsus 0.25, total 2.72 mm. Epigyne nosesaped, on either side a conical hump (Figs. 33, 35).

Description of the male: Total length 2.15 mm, carapace 1.00×0.86 mm,



Figs. 33-39. *Xyphinus gibber* n. sp. 33-35: female. 33) lateral view, legs omitted; 34) id., dorsal; 35) epigastric area, ventral. 36-39: male. 36) right palp, latero-ventral; 37) id., distal part, meso-ventral; 38) maxillae and labium, ventral; 39) maxilla in profile.

Scales: 0.2 mm. a: Fig. 34; b: Fig. 33; c: Figs. 35, 36; d: Figs. 37-39.

carapace height 0.72 mm. Clypeus two times the diameter of anterior eye. Carapace as in the female, but more elevated. Fovea present. Maxillae (Figs. 38, 39) with sclerotized lateral hump and apical rim folded down. Sternum, pedicel and abdomen as in the female. Leg I; coxa 0.29—femur 0.70—patella 0.34—tibia 0.55—metatarsus 0.50—tarsus 0.26, total 2.64 mm. Palp; femur 0.22—patella 0.19—tibia 0.34—tarsus (including bulb) 0.41 mm. Bulb with lateral tooth in the proximal half; ventral plate proximally with lateral angular projection and distally a lateral, strongly sclerotized transverse lobe and mesally a bifid apophysis (embolus?) (Figs. 36, 37).

Etymology: *gibber* is latin for “hump-backed”.

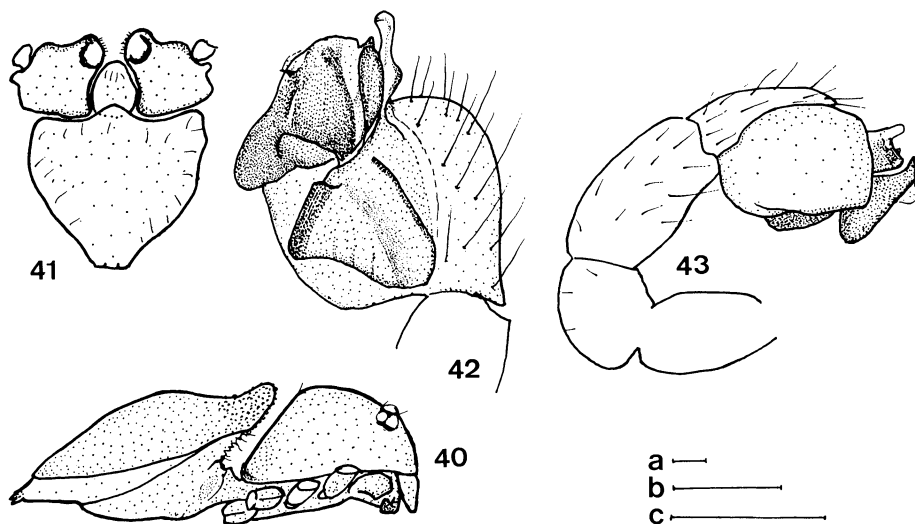
Distribution: Only known from East Kalimantan (Fig. 44).

***Xyphinus montanus* n. sp.**

(Figs. 40–43)

Material examined: 1 ♂ (holotype), West Sarawak, Matang Reserve (Mt. Serapi) 400 m, in primary forest litter, 25-III-1985, leg. P. R. and C. L. DEELEMAN (Coll. DEELEMAN).

Description of the male holotype: Total length 2.20 mm, carapace 1.10×



Figs. 40–43. *Xyphinus montanus* n. sp., male 40) lateral view, legs omitted; 41) mouth-parts and sternum; 42) right palp, mesoventral; 43) id., lateral.

Scales: 0.2 mm. a: Fig. 40; b: Fig. 43; c: Fig. 42.

0.85 mm, height carapace 0.58 mm. Chitinous parts light ochre, legs pale yellow (freshly moulted?). Clypeus nearly two times longer than the diameter of anterior eye. Carapace smooth, margin aligned with tiny denticles; no denticles on the centre of the carapace. No fovea. Maxillae, labium and sternum as in Fig. 41; sternum smooth, posterior part as in *X. gibber*. Abdomen projected and narrowed anteriorly (Fig. 40); anterior surface of ventral scutum with a pair of transverse crests and some denticles, dorsal scutum covered anteriorly with minute denticles. Leg I; femur 0.86—patella 0.34—tibia 0.62—metatarsus 0.58—tarsus 0.28, total 2.68 mm. Palp; femur 0.24—patella 0.22—tibia 0.34—tarsus (including bulb) 0.38 mm. Palp (Figs. 42, 43): Ventral plate of bulb proximo-mesally with a ridge, disto-mesally with a large transverse lobe; disto-

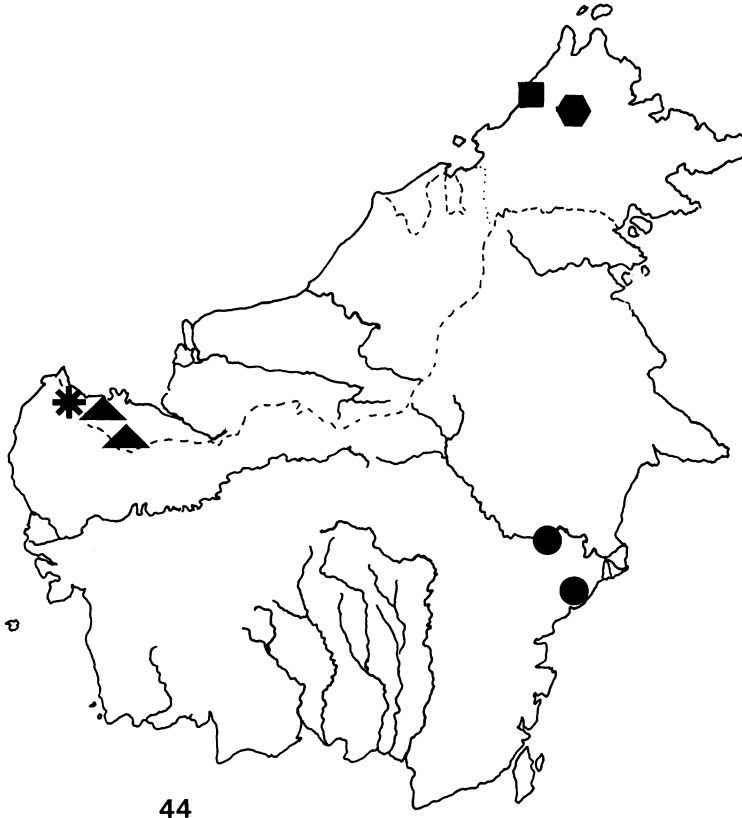


Fig. 44. Distribution of the *Xyphinus* species in Borneo. Triangle: *X. abanghamidi* n. sp.; asterisk: *X. montanus* n. sp.; square: *X. xanthus* n. sp.; hexagon: *X. lemniscatus* n. sp.; circles: *X. gibber* n. sp.

laterally are borne several small lobes and the embolus.

Female unknown.

Affinities: This species closely resembles *X. gibber* and differs in the palp only: The bulb is smaller, and lacks the proximo-lateral tooth; in the ventral plate, the proximo-lateral projection is also absent and there are differences in the disto-lateral apophyses.

Etymology: The species was found near the highest point of Mt. Serapi (appr. 400 m) together with the lowland species *X. abanghamidi*; it is surmised that *montanus* is an element of the montane fauna.

Distribution: At present only known from Mt. Serapi, West Sarawak, Borneo (Fig. 44).

Note: Unfortunately, the oonopid material collected in the eastern Sarawak Gunung Mulu area by the Royal Geographic Society/Sarawak Government Expedition 1978 (in the British Museum) was lent to another worker.

Discussion

The genus *Xyphinus*, as defined here, can be divided into two morphologically distinct species groups, which are also separated geographically. The first group consists of the type species *X. hystrix* SIMON and *X. xelo* n. sp., both from the Malay Peninsula; they share the rounded pits on the posterior margin of the carapace and the relatively simple bulb in the male palp and the small projection in the female genital area. The second group comprises at present 5 species, all from Borneo; the male palps have a larger and more diversified bulb and the epigastric area in the females has an enlarged projection, containing the spermatheca; furthermore, in most species the anterior part of the abdomen is specialized.

The genus is distinguished from other oriental oonopid genera by the raised carapace in the male, the prolonged pedicel, the sickle-shaped impressions on the posterior tip of the sternum, and by the unusual complexity of the male palp, a rare phenomenon among the Oonopidae, and haplogyne spiders in general (Pholcidae excepted). The only oriental oonopid genus known at present with a highly differentiated palpal organ is *Pseudotriaeris* BRIGNOLI from Japan (BRIGNOLI 1974). This is, as far as can be judged from the scarce and discolored material available, a much less specialized spider, lacking the special developments in the male maxillae, the sternum, the pedicel and the abdomen

seen in *Xyphinus*; it is therefore difficult to assess their exact relationship.

The pair of round pits on the posterior margin of the carapace, character in *X. hystrix* and *X. xelo*, is also found in some sympatric *Gamasomorpha* KARSCH and *Opopaea* SIMON whereas spines and teeth on the carapace also occur in several S. E. Asian *Gamasomorpha* (own observations). Small depressions on either side of the posterior sternum-tip are also seen in several oriental *Gamasomorpha* and *Opopaea*. Certain *Opopaea* show furthermore simple chitinized structures on the tip of the male palp, similar to that in *X. hystrix* and some *Opopaea* females exhibit a small protrusion in the epigastric area (own observation and BRIGNOLI, 1978, Fig. 7). These observations serve as arguments in favour of the assumption that *Opopaea* should be considered to contain the closest related species. *Xyphinus* then, could be seen as a specialized offshoot of this worldwide but otherwise ill-known genus. *Opopaea* is characterized by the male palp, in which the patella is curiously enlarged and to which the femur is attached ventrally instead of proximally. A vestigial state of this character is found in *X. abanghamidi* n. sp. (Fig. 16).

The Oonopidae are extremely numerous in the tropics, both in individuals and in species; in leaf litter, ant nests and possibly other habitats of difficult access. They have only been studied a little so far and our knowledge is still fragmentary; many species await description. In the S. E. Asian rainforests, a large part of them seems to belong to a few worldwide genera, such as *Gamasomorpha*, *Opopaea*, *Ischnothyreus* SIMON and *Orchestina* SIMON, which are fragmented into countless local forms.

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